

**REMARKS**

The Examiner made rejections under 35 U.S.C. §112, 35 U.S.C. §102 and double patenting.

As to the 35 U.S.C. §112 rejection, the Examiner rejected the claims due to the term “range of about”. This rejection is traversed. The term “range” is clear. The term “about” is also clear. The Examiner referred to MPEP §2173.05(d). It is not seen why this citation is appropriate since that section deals with exemplary claim language using terms “for example” or “such as”. Of course, a range is not exemplary, but is specific. There is discussion of the use of the term “about” at MPEP §2173.05(b) section A. It is clear that the term “about” is appropriate in patent claims. The MPEP there states as follows:

The term “about” used to define the area of the lower end of a mold as between 25 to about 45% of the mold entrance was held to be clear, but flexible.

The citation is to “Ex Parte Eastwood”. Hence in the MPEP there is an example of a range which uses the term “about”. Hence this rejection is traversed, and it is requested it be withdrawn.

The Examiner made an obviousness type double patenting rejection, citing Claims 1 through 12 of related U.S. Patent 6,501,842. The Examiner said that these claims “contain every element of claims 105-116 of the instant application and as such anticipate claims 105-116 of the instant application”.

The double patenting rejection is traversed. The claims here are clearly not of the same scope and do not contain the same elements as those in the '842 patent. For instance, compare present Claim 105 to Claim 1 of the '842 patent. First, Claim 1 of '842 recites in the body of the claim “adding at least one copy protection pulse to each of a plurality of blanking intervals of the video signal;”. No such element is in present Claim 105 or the claims dependent thereon. Instead

Claim 105 says “A method of modifying a copy protected video signal, wherein the unmodified copy protected video signal includes selected copy protection signals...”. There is no reference to “blanking intervals” here. Also, whereas Claim 1 of ’842 recites in the body of the claim “adding at least one copy protection pulse”, in contrast present Claim 105 assumes (see preamble) that the signal is a “copy protected video signal”, which includes “selected copy protection signals”.

Also, Claim 1 of ’842 recites “replacing a least a portion of a back porch”. In contrast present Claim 105 recites “adding a pulse having selected negative amplitude to a selected position in a back porch region”. Again there are differences here in terms of “replacing” versus “adding”. There is no recitation of “selected negative amplitude” in Claim 1 of ’842. Claim 1 of ’842 calls for a “back porch” whereas present Claim 105 calls for “a back porch region”. Additionally, Claim 1 of ’842 says that the replacement signal is one “having an amplitude about -10 to -30 IRE units below the blanking level”. Not only is no such range recited in Claim 105, but no such recitation is made anywhere in the present claims. Instead the amplitude called for in the present claims is “about -10 to -20 IRE units”, which is different. Moreover, that recitation is only made in a dependent claim which also contains other limitations.

This is only exemplary of differences between the present claims and those of the ’842 patent. There are others. Hence it is not seen why there is any basis for obviousness type double patenting, and the Examiner has not provided an indication or analysis of why the clear differences between the present claims and those of the ’842 patent are merely obvious or routine.

Therefore, it is requested that the Examiner reconsider this rejection and withdraw same.

The third rejection is of Claims 105-116 under 35 U.S.C. §102(b) as anticipated by Buynak. The Examiner stated in pertinent part:

Buynak discloses a method of augmenting a video signal wherein augmenting pulses are added to the horizontal sync pulse intervals of a video signal to prevent a copy of the modified video signal (Abstract), which meets the limitation of adding a pulse to a selected position in a back

porch region following a horizontal sync pulse of the copy protected video signal. The augmenting pulses can have a negative amplitude, which meets the limitation of adding a pulse having selected negative amplitude.

Moreover, with regard to the dependent claims, the Examiner cited Buynak column 10, lines 40-45 as meeting the numerical claim limitations regarding the pulse width and the amplitude.

These rejections are traversed as set forth following.

In accordance with the present invention, the amplitude of the waveform in the back porch of the video signal is lowered. Additionally, it is pointed out that the terms “horizontal blanking interval”, “horizontal synchronization pulse”, and “back porch” all have specific meanings in the television/video field. These meanings are well understood in the field. The horizontal blanking interval consists respectively of a front porch, horizontal sync pulse, and a back porch. This is illustrated in Buynak Fig. 1 which shows a standard video signal. Buynak Fig. 1 shows specifically the “front porch”, “sync” portion (see legend immediately below the horizontal sync pulse) which is the actual horizontal synchronization (sync) pulse, and the color “burst” portion. Buynak also shows the “back porch” immediately following the color burst.

It is respectfully submitted that in the television/video field the back porch is defined as “the portion of the video signal which lies between the trailing edge of the horizontal sync pulse and the start of the active picture time. Burst is located on back porch.” See the attached excerpts from Television Measurements NTSC Systems, published by Tektronix, pages 70-71. This is not a prior art reference per se and hence is not cited in an Information Disclosure Statement but is submitted as background information having a definition of relevant standard terms. Hence under the well accepted definition, the back porch is not only the portion specifically labeled as “back porch” in Buynak Fig. 1 but also includes the color “burst” portion. In any case, it is clear that the back porch, however defined, does not include the duration of the actual horizontal sync pulse (“sync”). It is clear that the back porch follows the horizontal sync pulse and hence these two time periods are mutually exclusive.

Disclosure of the present application is directed to modifying a video signal which has an added copy protection pulse by lowering at least a portion of the back porch of the horizontal blanking interval. In contrast, Buynak discloses modifying a video signal by adding copy protection pulses (which he calls “augmenting pulses”) in the sync pulses but not to the back porch and not modifying the back porch in any way. See Buynak, Figs. 2, 3 and 4 each of which illustrate adding “augmenting pulses” (labeled “a”) to the horizontal sync pulse itself. Note that in each of Figs. 2, 3 and 4 the color burst is shown residing, as usual, in the unmodified back porch and is depicted in outline as a hexagonal waveform for convenience as is conventional. Also, see the description in Buynak, column 3, beginning line 17, which states “Fig. 2 shows an example of a horizontal blanking interval portion of a video signal including three augmenting pulses added to the horizontal sync pulse.” (Emphasis added.)

Note also that Buynak distinguishes this approach from others. See Buynak “Background of the Invention” where Buynak characterizes a different technique at column 1, being at line 56, “One such technique adds a large amplitude pulse to the back porch of the horizontal blanking interval.” (Emphasis added.) Hence it is clear that Buynak otherwise does not disclose adding pulses to the back porch or otherwise affecting the back porch of the video signal but instead only discloses modifying the horizontal sync pulse itself by adding thereto the augmenting pulses “a”.

Moreover, the present disclosure is directed to embodiments adding negative going pulses to the back porch or generally lowering the back porch or in other embodiments (not necessarily claimed here) replacing same, resulting in a lowered signal amplitude of the back porch. There is no disclosure in Buynak of this or any suggestion thereof. To the contrary, it is clear that Buynak adds as his “augmenting pulses” only positive going pulses as shown in each of his Figs. 2, 3 and 4. Moreover, these positive going pulses are added by Buynak only to the horizontal sync pulse of the video signal. Therefore it is respectfully submitted that the rejection under §102 was incorrect and should be withdrawn.

Specifically, with regard to rejected independent Claim 105, first the preamble of Claim 105 recites “A method of modifying a copy protected video signal”. While Buynak discloses a copy protection (anti-copy) process see Buynak, column 2, lines 14-16, Buynak does not disclose or even suggest “modifying” same. Hence the only relevance of Buynak to Claim 105 is that Buynak, perhaps, meets a portion of the Claim 105 preamble. However, Buynak does not modify copy protection, but is itself a type of copy protection.

Additionally Buynak, as pointed out above, fails to meet the act in the body of Claim 105 of “adding a pulse having a selected negative amplitude to a selected position in a back porch region following a horizontal sync pulse”. First, in Buynak the added pulses do not have a “negative amplitude” but in each of Figs. 2, 3 and 4 have a positive going amplitude.

Each of the Buynak added pulses extend upwards from the bottom of the horizontal sync pulse. In every case where the added pulses “a” are present in Buynak, the resulting waveform has a greater amplitude than the conventional unmodified horizontal sync pulse of Buynak Fig. 1. Hence the aspect of Claim 105 of “adding a pulse having a selected negative amplitude” is not met by Buynak. Moreover, the second part of the body of Claim 1 is also not met by Buynak because this part recites “selected position in a back porch region following a horizontal sync pulse.” As pointed out above, in all cases in Buynak the augmented signals are added only in the horizontal sync pulse. None are present in the back porch, as shown in Buynak Figs. 2, 3 and 4. As noted above, the back porch is that portion immediately following horizontal sync and includes the color burst and the actual back porch immediately following the color burst. As clear in each of Buynak Figs. 2, 3 and 4, in no case are the augmented signals “a” present in the back porch.

Hence, clearly Claim 105 distinguishes over Buynak for each of several reasons and there is no suggestion in Buynak to modify Buynak to meet Claim 105 in each of these ways.

The Examiner stated in his rejection at the very end of page 2 carrying over to page 3 “The augmenting pulses can have a negative amplitude, which meets the limitation of adding a pulse having a selective negative amplitude.” This statement is not correct technically since in no

case do the Buynak augmenting pulses ever have a negative amplitude. It is acknowledged that in certain aspects, for instance Figs. 2 and 3 of Buynak, the augmenting pulses extend below the level of 0 IRE. However, in all cases, they are greater than the blanking (sync tip) level and clearly these pulses, as pointed out above, when added result in the waveforms in Figs. 2, 3 and 4 such that at all points they have an amplitude the same or greater than that of the unmodified horizontal sync pulse. Therefore it is not seen where there is any “negative amplitude” shown or suggested in Buynak with regard to his augmenting pulses. Hence clearly Claim 105 distinguishes over Buynak.

To put this another way, in Buynak all of the “a” pulses are positive going pulses. Buynak’s prior art Fig. 1 shows that the minimum amplitude of the conventional horizontal sync pulse is -40 IRE. In each of Buynak’s Figs. 2, 3 and 4, the minimum value of the horizontal sync pulse, even with the added augmenting pulses, is still at a minimum -40 IRE. Hence the added pulses are all clearly positive going which thereby serve to locally increase the amplitude of the resulting horizontal sync pulse and at no place do they decrease the horizontal sync pulse amplitude. Clearly Buynak is only generating and adding augmenting pulses having positive amplitudes.

Dependent Claims 106-110 distinguish over Buynak for at least the same reasons as the base claim.

As regards dependent Claims 107-110, the Examiner additionally stated “Buynak discloses that the augmenting pulses have a width of at least .5 ms (column 10, lines 40-42), which meets the limitation of negative pulses having a width in the range of 12 ms, and the augmenting pulses having an approximate amplitude of -40 IRE (column 10, lines 43-45), which meets the limitation of the negative pulses in the range of about -10 to -20 IRE units.” It is respectfully stated that this analysis is not correct technically and hence Claims 107-110 (and similarly Claims 113-116 discussed below) additionally distinguish over Buynak. The Examiner misconstrued this portion of Buynak. To quote in full Buynak, column 10, beginning line 37:

Another video signal modification technique comprises adding pairs of pseudo-sync pulses to lines in the vertical blanking interval not used

for equalizing pulses, that is, lines 10-20 of a video field in NTSC format. The first pseudo-sync pulse of each pair is a negative pseudo-sync pulse having a duration of at least 0.5 microseconds and extending down to the sync tip level of the equalizing pulses, that is, an amplitude of approximately -40 IRE units. The second pseudo-sync pulse of each pair is a positive pseudo-sync pulse having a large amplitude which can be approximately equal to the peak white signal level of 100 IRE units. (Emphasis added.)

This passage is a description of another video signal modification technique not invented by Buynak but referring to the well-known Macrovision Corp. pseudo-sync pulses for copy protection. Clearly Buynak is not suggesting here that this passage is by itself part of his inventive copy protection technique. Moreover, it is clear in this passage that in this Macrovision copy protection technique as pointed out by Buynak, column 10, line 39, these pulse pairs are added to the vertical blanking interval only. The significance of this description of the Macrovision pseudo-sync pulse copy protection technique is stated at Buynak column 11, beginning line 40:

The augmented video signal is supplied to video processor 720 which modifies the augmented video signal using a supplemental copy protection technique, such as the above-described technique of changing the duration of a field interval or the above-described technique of adding a plurality of pseudo-sync pulses to the vertical blanking interval of each field. (Emphasis added.)

Thus, Buynak discloses that his augmented pulses may be used in conjunction with the Macrovision prior art pseudo-sync pulse copy protection scheme. However, it is clear that these are complementary copy protection schemes and that the description of column 10, lines 40-45 is not intended to apply to the Buynak augmented pulses in the horizontal sync pulses. Hence, this description is not relevant to Claims 106-110 which depend upon Claim 105 and which is directed to adding pulses to the back porch, since there is no suggestion to put the Macrovision pseudo-sync pulses in the back porch.

Claim 107 is specific about the nature and location of the added pulses, specifying their amplitude range, width and positioning. First, of course, there is no reason to believe that the

Macrovision pseudo-sync pulses as described in Buynak should be used in the back porch. Moreover, the description of these pseudo-sync pulses as given by Buynak at col. 10 lines 40-45 fails to meet Claim 107 in several ways. First, Claim 107 recites “the amplitude of the negative pulse is in the range of about –10 to 20 IRE units”. The Examiner points out that Buynak describes pseudo-sync pulses as having amplitude of approximately –40 IRE units. This is twice as much as the lowest point of the range recited in Claim 107 and so is nowhere near “about”. Second, Claim 107 recites that the negative pulse “is positioned in the range of about 1 to 2 microseconds after a color burst signal.” This specifies a particular section of the back porch also not specified in the Buynak description of the Macrovision pseudo-sync pulses which are merely described in Buynak at column 10, line 38 as being added “to lines in the vertical blanking interval not used for equalizing pulses,”. There is no suggestion here that they be in the particular back porch location set forth in Claim 107.

Claim 108 similarly distinguishes over this description in Buynak of the Macrovision pseudo-sync pulses since Claim 108 recites a particular amplitude not suggested or obvious in light of the –40 IRE units mentioned in Buynak.

Claim 110 similarly distinguishes over this description in Buynak of the Macrovision pseudo-sync pulses by reciting the same back porch position as recited in Claim 107, also not specified or even suggested in Buynak.

Independent Claim 111 in this case, while not identical to independent Claim 105, recites many of the same features as Claim 105 and hence distinguishes over Buynak at least for the same reasons as pointed out above pertinent to Claim 105.

Similarly, Claims 112-116 dependent on Claim 111 are allowable for at least the same reasons as base Claim 111. Moreover Claims 112-116 recite the same limitations respectively as Claims 106-110 and hence additionally distinguish for at least the same reasons as do Claims 106-110 as pointed out above.



Hence it is respectfully submitted that all pending Claims 105-116, without amendment, distinguish over Buynak, should not be subject to a double patenting rejection, and are allowable. If the Examiner contemplates action other than allowance of this case, he is requested to contact the undersigned at the telephone number given below.

### CONCLUSION

A request for extension of time to respond is enclosed. Authorization is given to charge the undersigned's deposit account as set forth in the accompanying transmittal letter any necessary fees for entry of this response.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no.136922000503.

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Respectfully submitted,

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